1: Stanford U. S-4, 5 1956 AD1 Formosa AD1

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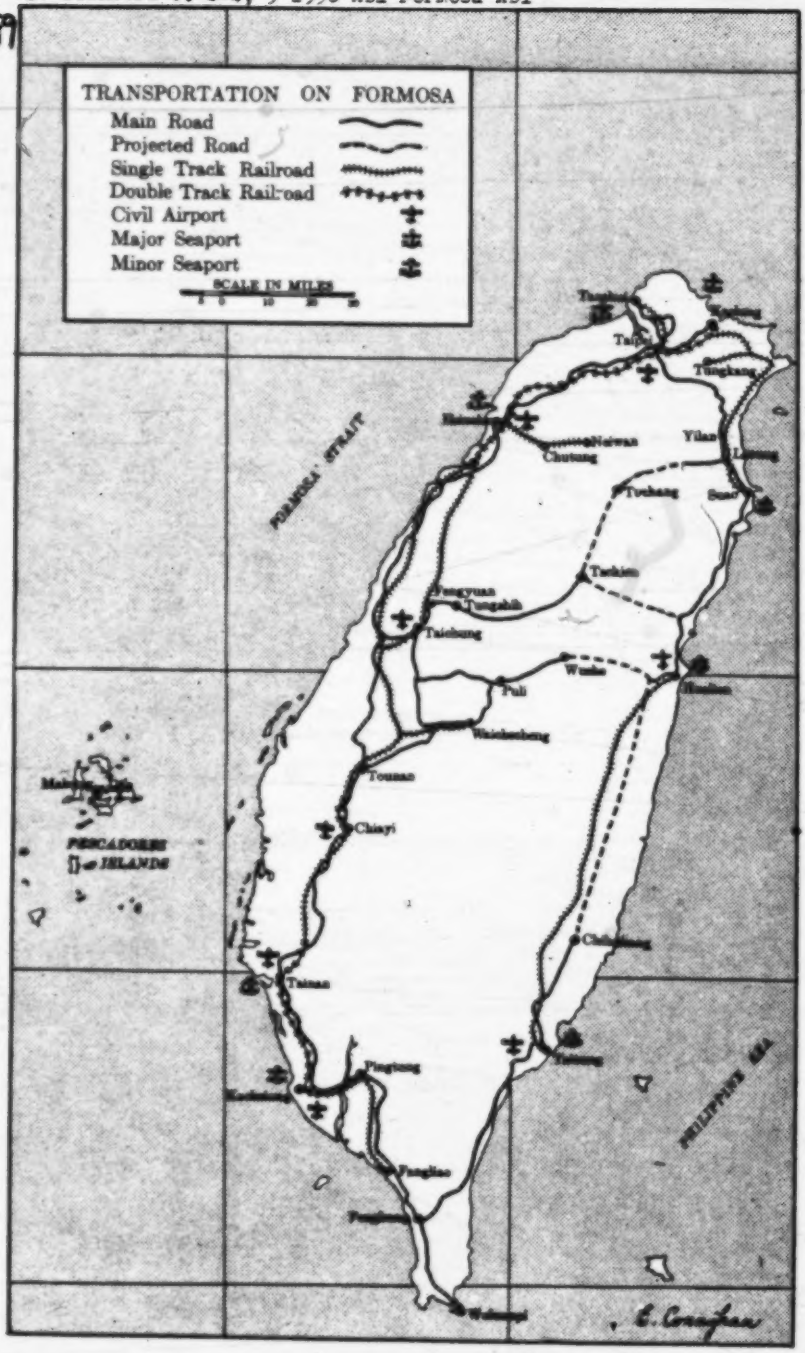

A B C

Reduce AC to BC

Transportation, facing p. 630

[Facing p. 658]

6: Kirchhoff--33 [7] U-4 (no date) 1895 Formosans
116, 439, 489

When four ports were thrown open in 1860 to foreign commerce (Tam-sui and Ki-lung in the northeast, Tai-nan and Ta-kaô in the southwest), in Europe excessive hopes were set on the commercial profits to be obtained from the natural wealth of the island. Nothing was known of the lack of communications in the interior, the utter absence of the canals which, in China, did so much to render easier the transport of goods, or of the poverty of the inhabitants. The sum at the disposal per day of the poor Chinese peasant for himself and his numerous family (the Chinese price of essentials being very low) is but 20 pfennigs! But since then many advances have been made in Formosa, and at least in some stretches the absence of roads has been made good. How much that has fostered commerce can be seen from the increase of total imports and exports for the two most important of these treaty ports. In the 15 years from 1868 to 1883, these figures rose from 7 to 18 million for Ta-kaô, and for Tam-sui from 5.6 million to 20 million.

241 occupation in the first half of the seventeenth century, rice and sugar have been the staple products of the island.

241 245 Under Chinese rule in the eighteenth and nineteenth centuries, a constant influx of immigrants from the mainland reclaimed the extensive western plains of Formosa for the cultivation of rice and sugar. The foothills surrounding the plains were terraced for the growing of tea. Further in the mountains, 278 camphor was gathered from the dense forests. In the more isolated mountain region, aboriginal tribes practiced hunting and slash-and-burn agriculture. Coal mines were operated for a time by the government but were later abandoned.

•489 Except for a 60-mile stretch of railway between Keelung and Hsinchu, communications was primitive until the present century. Rafts, boats, and junks were used along the coast and on lakes and rivers. Overland, the inhabitants were obliged to travel either in man-borne palanquins[3] or ox-drawn carts. 439 Western merchants handled a small international trade, consisting of tea, camphor, and sugar.

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3. A closed litter commonly used as a conveyance in China.

45:Stanford U. S-4, 5 1956 AD 1 Formosa
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Annex "A," Subparagraph 3f,
Economic Background

TRANSPORTATION

I. INTRODUCTION

489 Western Formosa is well served by a network of railways and highways. The mass of the people who have to travel relatively long distances, depend on the railroad; highway buses are utilized for shorter trips. Due to natural barriers, there are no railroad connections between the west coast and the east coast of Formosa. The transportation facilities on the east coast are relatively poor. There are no roads for vehicular traffic across the central mountain barriers. Plans to overcome the latter difficulty are now underway, however. With the exception of a gap between Chihshang, north of Taitung, and Hualien, highways now make a circuit of the island. Supplementing the railroad and highway lines are privately owned pushcar lines operating cars known as "daisha" or "T'ai vehicles" (Taiwan vehicles). Small flat cars are pushed manually along 18-20" gauge rails; they are used for passengers and the transport of sugar cane, coal, and lumber. In most instances they serve towns in the interior of the island and are often the only means of transport for a sizeable area. Pedicabs are used extensively in the cities, and ox-driven carts and man-pulled carts are used in both city and country.

poor condition. An arterial highway 404 kilometers long, linking the principal ports, runs from Keelung to Kaohsiung. It has a minimum width of 21 feet (6-1/2 meters) over most of its length and can support 9-ton trucks.[7] Gravel roads connect Suao with the arterial highway, and other roads serve the southern part of the island, passing through Taitung and ending at Chihshang. There is no highway between Chichshang and Hualien. Su-hua highway, running between Suao and Hualien, is a single lane of about 28 miles (45 kilometers), passing along the face of the sea-cliffs. Construction of this road was a major engineering feat. The road is sometimes blocked by landslides. Generally, the gravel roads in Formosa are very rough and the bridges very narrow.

Currently, surveyors are at work in preparation for the building of highways across the central mountains from Tungshih to Tachien. One branch will extend to Lotung by way of Tuchang and another will connect with the Su-hua highway through Kuanyuan and Taloko Gorge.

Formosa has a comparatively small number of motor vehicles. As of the end of 1954, there were 3,875 passenger cars (654 for public hire) to a population of about 10.4 million. Almost all of the population must depend on mass transport of one kind or another. In 1954 there were 1,774 buses on the island. The Taiwan Provincial Highway Bureau, together with seventeen private companies and five city bus services carried a total of 275 million

7. T'ai-wan Kung-lu Kung-ch'eng [Taiwan Highway Engineering], Vol. 2, No. 1, Nov.1,1953, p. 9.

passengers over an average distance of 9.4 kilometers in 1954. The increase in the total traffic volume in recent years has been remarkable -- 943 million passenger-kilometers in 1951 and 2,582 million passenger-kilometers in 1954. In the same period, railroad passenger traffic increased slightly, from 2, 154 million passenger-kilometers to 2,217 million passenger-kilometers.[8]

All highway truck services are operated by private concerns; in 1954 there were 455 trucking companies, with a combined total of 2,401 trucks. In that year the companies carried 4.7 million metric tons of goods over an average distance of 27.4 kilometers. However, the actual total volume of trucking on the island may be somewhat greater, since many factories and enterprises own trucks.

With improved roads and better highway facilities -- as in the case of the completion of a surfaced road between Taoyuan and Tainan, the completion of Silo bridge, and so on -- highway transportation systems will expand. The United States is furnishing bus chassis and motor assemblies for this purpose.

The completion of Silo bridge deserves attention. Before 1952, the north-south arterial highway was interrupted by the Cho-shui River at Silo. At this point, the river is about 1.3 miles (two kilometers) wide. In order to cross the river, traffic detoured some 53 miles (85 kilometers). With American aid, the government proceeded

8. Statistical Abstract of the Republic of China, 1955, Tables 126-28.

48: Chen E-4 (no date) 1955 AD1 Formosa AD1

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In 1942 there were 2,593 inhabitants per doctor, or 4 doctors per 10,000 inhabitants (computed from 14: Table 484).[9]

12. Transportation

A railroad from Keelung to Hsinchu was already constructed by the Machurian government. The railroad mileage increased gradually after the Japanese occupation. The main line from Keelung to Kaohsiung was completed by 1908. New branches, double tracks, and sidings were added rapidly, particularly during the 1920's. By 1930, the railroad system of the Japanese era was generally completed. As to passenger traffic, the number of passengers in 1931 was about 21 times of the number of 1901, and between 1931 and 1941 the number of passenger was almost tripled.[10] The mileage of highways was also rose rapidly after the 1920's (14: Table 449). It is interesting to note that, the number of bicycles, automobiles and trucks began to increase after 1920 (Fig. 4, Fig. 5). When bicycles were first imported, people were surprised by their high speed, and thought they were some magical thing. Now they became familiar with them, and utilized them more and more. This is a sign of the change of attitude among the people.

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Before transportation was developed, different localities within an area could not exchange and trade their products, and the failure of crop in one locality would cause local famine. W. S. Thompson, who stayed some months in Nanking, China, in 1930-31, reported: at that time rice was so cheap in Nanking that many farmers were going bankrupt. At the same time people were starving by the hundred of thousands (some say by the millions) in northwest China. There was no means of transportation to let the two embarassed localities help each other, so local famine was inevitable. This situation has been very common in the past. Such prosperous and well-organized countries as England, France, and Sweden had severe local famines from time to time, even during the first half of the nineteenth century (16: pp. 67-68).

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Development of transportation not only can stabilize the living of the people, but at the same time it can significantly influence the extent of the peoples' economic activity and attitudes. When transportation is poor, surplus products of one locality are useless, and people are obliged to live a self-sufficient and closed economic life. Effective transportation can change surplus products into commodities, extending the sphere of economic and social activities. Thus, a self-sufficient and closed society will change into an open, circulating society living by division of labor and exchange. In a closed society, not only are the things produced different, but customs and manners are also different. In an open and circulating society, everything will gradually become uniform through continual contact and communication. In the vital statistics of Taiwan we can see a reflection of this change. During the early years of Japanese occupation,

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Note 9: As to the situation of medical facilities in 1945, see Li, Ting-yeh: op. cit. 12. As to the comparision of the situation of Taiwan with other parts of the world, cf. 27: Table 120.

Note 10: Tang, C. W.: "Railways in Taiwan". Chinese-American Economic Cooperation, Vol. 1, No. 5, 1952, Taipei, p. 66.

52:Barclay S-5 (nodate)1954 ADl Formosa ADl

this nominal government policy existed within Taiwan's rural villages. The bulk of the population was made up of peasant farmers and small tradesmen, who supplied the commodities for most of the export trade. The fact that their products were exported did not bring them into closer touch with outside markets. Farming and other village activities did not reach beyond local boundaries; the arrangements for disposing of farm produce, as we have seen, were in different hands.

The rural population led a settled existence. Taiwan being a small area, travel between places was not uncommon, but it was rare for families to change residence from one part to another. With poor roads and chronic banditry, even minor journeys entailed some hardship and risk and so were undertaken chiefly for exceptional purposes. The same difficulties hindered the movement of commodities. Internal markets had not been very effectively developed to transfer articles of ordinary use from town to town; reports tell of wide variation in prices for standard items such as food, and of prohibitive hazards to products in transit.[5] Often products could be shipped to the coast and on to China more easily than to points elsewhere in the island.

Local stability fostered local solidarities. The inconvenience of communication helped rural settlements to become close-knit communities, by segregating certain cleavages and antagonisms that the Chinese had brought with them from the mainland. Many had come from different localities in Fukien and Kwangtung, and had maintained their ancestral clan affiliations. Members of these groups frequently settled together and did not intermarry with others. Even many years after annexation by Japan, the Japanese found that several communities had kept themselves free of mixture with other groups. For these various reasons, village organization in many respects became self-contained and self-sufficient.[6]

Property institutions helped to buttress the stability in these small communities. In Taiwan, as in China, land ownership was the only durable form that substantial wealth could take. It was durable

[5] Takekoshi, Yosaburo (1907), pp. 252 and 269-270.

[6] The turbulent history of Taiwan has been carelessly represented as one of indiscriminate civil disorder, its early population as "unruly." It is noteworthy that most of the disturbances apparently followed the lines of cleavage above. Far from portending a breakdown of tradition within the Chinese settlements, these incidents were contests of strength between distinct parties—powerful clans, government forces, and aboriginal tribes. None was directed against the form of the social order itself, and none ever threatened that order.